

# Patent Abstracts of Japan

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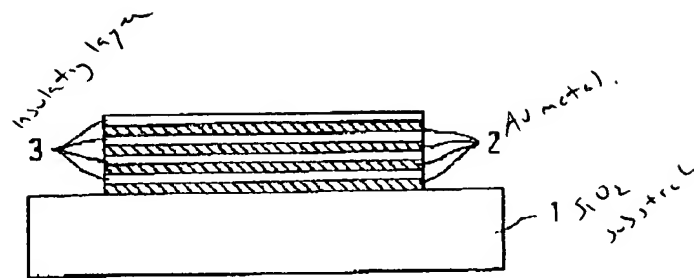
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TITLE : ELECTRODE FOR SENSOR



ABSTRACT : PURPOSE: To make an electrode area very small and improve sensitivity by forming a multi-layer film sensor laminated with an insulator thin film and a metal thin film alternately into two or more layers on a substrate.

CONSTITUTION: A multi-layer film laminated with 50 pairs of an Au metal layer 2 of 10nm and a SiO<sub>2</sub> insulating layer 3 of 10nm alternately is formed on a SiO<sub>2</sub> substrate 1, for example, it is cut to the required size, the cut face is polished, and a liquid or gas detecting sensor using the metal layers 2 as electrodes is formed. Since the electrodes (metal layers) 2 of this sensor are small, the current value is small, the iR drop is small, and a sample having high electric resistance can be measured at a high S-N ratio because of a small charging current of the electric double layer. The substance is isotropically diffused to the electrodes 2, the current density is high, and stationary state can be recovered in a short time.

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